A 59-year-old woman was admitted with a presumptive diagnosis of infective endocarditis of a prosthetic aortic valve. Six months earlier, she had undergone aortic valve replacement with a porcine valve for the treatment of aortic valve regurgitation, replacement of the ascending aorta with a Dacron tube-graft, a Cox maze operation, and tricuspid ring annuloplasty. Transthoracic echocardiograms of the prosthetic aortic valve now showed 2 mobile vegetations in diastole and a 20 × 12-mm ovoid vegetation in systole (Fig. 1). Color-flow Doppler in systole revealed central occlusion of the aortic valve opening by the vegetations, with an eccentric antegrade jet of flow (Fig. 2A), and continuous-wave Doppler showed severe aortic valve stenosis (transvalvular peak gradient, 86 mmHg; mean gradient, 51 mmHg) (Fig. 2B). Intraoperatively, we found that the vegetations nearly occluded the opening of the prosthetic valve (Fig. 3). The patient underwent aortic valve replacement with a Carpentier-Edwards pericardial valve (Edwards Lifesciences Corporation; Irvine, Calif) and replacement of the previous vascular graft with a Dacron tube-graft in the ascending aorta. Candida parapsilosis was isolated from initial blood cultures taken in triplicate and from cultures of the vegetations. The Candida organism was also identified during histopathologic examination of the vegetations (Fig. 4). After 2 weeks of intravenous therapy with amphotericin B and caspofungin, the patient's clinical symptoms resolved, and the C. parapsilosis disappeared from her blood. She was discharged from the hospital on a continuing regimen of oral fluconazole (400 mg/d). During the next 12 months, the infection did not recur.
Comment

*Candida* species are the most frequent causes of fungal endocarditis. *C. parapsilosis* is the second most common species, after *C. albicans*. Even with large vegetations, our patient experienced no embolic phenomena, which occur in one quarter of patients with fungal prosthetic valve endocarditis. In most patients with *Candida* prosthetic valve endocarditis, surgical and pathologic findings include multiple vegetations on the valve with extension into the prosthetic annulus, or a thickened leaflet even without vegetation. No previous reports have noted severe aortic valve stenosis due to bulky fungal vegetation in bioprosthetic valves. In our patient, the vegetations were found only at the cusps, which led to aortic valve stenosis; there were no gross findings of vegetation or purulent inflammation in the sewing ring, the prosthetic valve struts, or the adjacent aortic wall.
Acknowledgments

We thank Drs. Min Ho Kim and Myoung Ja Chung for their help in the preparation of this manuscript.

References


Fig. 4 Photomicrographs show A) degenerated yeast-form fungi in necrotic tissue (H & E, orig. ×200) and B) typical yeasts and pseudohyphae of Candida species (gromori methenamine silver stain, orig. ×400).